SAND-BELT FINISHING MACHINE HAVING A SMALL SIZE

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a sand-belt finishing machine having a smaller size, and more particularly to a sand-belt finishing machine that can be assembled easily and conveniently.

2. Description of the Related Art

A conventional sand-belt finishing machine comprises a main frame, and two grinding devices each mounted on the main frame and each provided with a sand belt for grinding and finishing a workpiece, such as the wood material. The main frame is substantially H-shaped, and the two grinding devices are mounted between the two opposite side walls of the main frame, so that the two grinding devices are positioned efficiently.

However, it is necessary to place the two grinding devices between the two side walls of the main frame carefully, thereby causing inconvenience in assembly. In addition, the two grinding devices are covered by the two side walls of the main frame, so that the operator cannot touch the grinding devices easily, thereby causing inconvenience in maintenance of the grinding devices.

SUMMARY OF THE INVENTION

The present invention is to mitigate and/or obviate the disadvantage of the conventional sand-belt finishing machine.

The primary objective of the present invention is to provide a sand-belt finishing machine having a smaller size.

Another objective of the present invention is to provide a sand-belt finishing machine that can be assembled easily and conveniently.

A further objective of the present invention is to provide a sand-belt finishing machine that can facilitate the maintenance work.

A further objective of the present invention is to provide a sand-belt finishing machine, wherein the grinding devices are located in the opened space formed by the longitudinal portion and the transverse portion of the main frame, so that the grinding devices can be mounted on the longitudinal portion of the main frame easily and conveniently, thereby facilitating the operator mounting and fixing the grinding devices on the main frame.

A further objective of the present invention is to provide a sand-belt finishing machine, wherein the grinding devices are located in the opened space formed by the longitudinal portion and the transverse portion of the main frame, and the second end of each of the grinding devices is formed with a free end, so that the operator can touch the grinding devices easily and conveniently, thereby facilitating maintenance of the grinding devices.

In accordance with the present invention, there is provided a sand-belt finishing machine, comprising a main frame, and two grinding devices, wherein:

the main frame is substantially L-shaped and includes a longitudinal portion and a transverse portion; and

each of the two grinding devices has a first end rested on a first side of the longitudinal portion of the main frame, and a second end formed with a free end.

Further benefits and advantages of the present invention will become apparent after a careful reading of the detailed description with appropriate reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view of a sand-belt finishing machine in accordance with the preferred embodiment of the present invention;

Fig. 2 is a side plan view of the sand-belt finishing machine as shown in Fig. 1; and

Fig. 3 is a top plan view of the sand-belt finishing machine as shown in Fig. 1.

DETAILED DESCRIPTION OF THE INVENTION

Referring to Figs. 1-3, a sand-belt finishing machine in accordance with the preferred embodiment of the present invention comprises a main frame 10, two grinding devices 22, a driving device 30, and a lift device 40.

The main frame 10 is substantially L-shaped and includes a longitudinal portion 12 and a transverse portion 14. The longitudinal portion 12 of the main frame 10 is connected with the transverse portion 14 of the main

frame 10. In addition, the longitudinal portion 12 and the transverse portion 14 of the main frame 10 form an opened space.

Each of the two grinding devices 22 has a first end rested on a first side of the longitudinal portion 12 of the main frame 10, and a second end formed with a free end. Each of the two grinding devices 22 has a surface provided with a sand belt 26. Preferably, the two grinding devices 22 are located in the opened space formed by the longitudinal portion 12 and the transverse portion 14 of the main frame 10.

The driving device 30 is mounted on a second side of the longitudinal portion 12 of the main frame 10, and is used to drive the two grinding devices 22.

The lift device 40 is mounted on the transverse portion 14 of the main frame 10, and includes a lift platform 42 that is movable relative to the two grinding devices 22. Thus, when the lift device 40 is driven, the lift platform 42 can approach or move away from the two grinding devices 22, so as to adjust the distance between the lift platform 42 and the two grinding devices 22, so that the workpiece (not shown) can pass through the distance between the lift platform 42 and the two grinding devices 22, and the surface of the workpiece can be ground by the sand belt 26.

The sand-belt finishing machine in accordance with the preferred embodiment of the present invention has a height equal to 82 centimeters, a

length equal to 45 centimeters and a width equal to 65 centimeters. Thus, the sand-belt finishing machine has a smaller size, and a lighter weight.

When the two grinding devices 22 are to be mounted on the main frame 10, the longitudinal portion 12 and the transverse portion 14 of the main frame 10 form an opened space, so that the two grinding devices 22 can be mounted on the longitudinal portion 12 of the main frame 10 easily and conveniently, thereby facilitating the operator mounting and fixing the two grinding devices 22 on the main frame 10.

In addition, the two grinding devices 22 are located in the opened space formed by the longitudinal portion 12 and the transverse portion 14 of the main frame 10, and the second end of each of the two grinding devices 22 is formed with a free end, so that the operator can touch the two grinding devices 22 easily and conveniently, thereby facilitating maintenance of the two grinding devices 22.

Although the invention has been explained in relation to its preferred embodiment(s) as mentioned above, it is to be understood that many other possible modifications and variations can be made without departing from the scope of the present invention. It is, therefore, contemplated that the appended claim or claims will cover such modifications and variations that fall within the true scope of the invention.